

Supplementary Table 1. *Case Details.*

Stage	Vitals/ Programing	Patient information	Confederate role and environmental cues	Expected Observed behaviors	Notes
1	T= 38.8° C HR=130, RR= 45 Sat = 94% on room air BP= 110/50 etCO2= n/a	Patient unwell, respiratory distress, speaking in single words. Physical Exam: <ul style="list-style-type: none"> • CNS : GCS 15/15 • Resp : decreased BS to right lung with crackles • CVS : CRF 4 sec, warm to touch, bounding pulses • Abdo benign • No rashes 	Apply monitors Report vital signs Report primary survey Establish IV access	Airway <ul style="list-style-type: none"> • Assess airway • Call for RT assistance Breathing <ul style="list-style-type: none"> • Non- rebreather mask • Ready BVM • Order portable CXR Circulation <ul style="list-style-type: none"> • Apply monitors 	Additional history is provided from mother and medical records if requested.
2	T= 38.8° C HR= 120 RR= 35 Sat = 90% BP= 105/55 etCO2= n/a	Patient unwell, respiratory distress, speaking in single words. Physical Exam: unchanged	SpO2 begins to decrease at constant rate. Information regarding difficult airway provided if not already done. CXR, EKG and venous blood gas provided	Airway <ul style="list-style-type: none"> • Prepare for possible intubation • Call for difficult airway cart and consultants Breathing <ul style="list-style-type: none"> • BVM Circulation	Diagnosis of pneumonia. Patient's respiratory effort is maximal.

			VBG: PH 7.2 PCO ₂ 45 HCO ₃ 16 lactate 7	<ul style="list-style-type: none"> Fluid bolus Antibiotics 	
3	Vitals: T= 38.8°C HR= 125 RR= 30 Sat = 86% (decreasing at constant rate) BP= 90/50 etCO ₂ = n/a	Patient unwell, resp distress, slurred speech. Physical Exam: <ul style="list-style-type: none"> CNS: GCS 9/15 (E2V3M4) Resp: decreased breath sounds CVS : weak and thready pulses 	If repeat VBG is requested: PH 7.15 PCO ₂ 60 HCO ₃ 14 lactate 8	Airway <ul style="list-style-type: none"> May repeat call to ENT/Anesthesia Plan for intubation Breathing <ul style="list-style-type: none"> BVM unsuccessful Circulation <ul style="list-style-type: none"> Fluids +/- vasopressor 	SpO ₂ continues to decline. Participant is prompted to alert PICU if not already done. ENT/anesthesia teams are busy in the OR and will be delayed.
4	Vitals: T= 38.9°C HR= 120 RR= 15 Sat = 82% (decreasing at constant rate) BP= 70/40 etCO ₂ = n/a	Patient critically unwell, unconscious in cardiopulmonary distress/failure. Physical Exam: <ul style="list-style-type: none"> CNS: GCS 6/15 (E1V2M3) Resp: decreased breath sounds 	Respiratory failure continues to progress. Nurses and RT voice concerns regarding critical course and need for intervention.	Airway <ul style="list-style-type: none"> Attempt intubation +/- airway adjunct (ex. LMA) Surgical airway required Breathing <ul style="list-style-type: none"> BVM unsuccessful Circulation <ul style="list-style-type: none"> Fluids +/- vasopressor 	Conclusion of the case when surgical airway is secured. The manikin is set to 'impossible' intubation and jaw opening is severely limited. Either the team leader or the RT

		<ul style="list-style-type: none">CVS: weak and thread pulses			are able to attempt intubation.
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